

**STIC Biotechnology Systems Branch**

**RAW SEQUENCE LISTING**  
**ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source:

Date Processed by STIC:

10/578,521  
JFUBP  
5-17-06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

# Best Available Copy

## Raw Sequence Listing Error Summary

### ERROR DETECTED

### SUGGESTED CORRECTION

SERIAL NUMBER:

105781521

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos     The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2      Invalid Line Length     The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3      Misaligned Amino  
    Numbering     The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4      Non-ASCII     The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5      Variable Length     Sequence(s)      contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6      PatentIn 2.0  
    "bug"     A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7      Skipped Sequences  
    (OLD RULES)     Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence:  
                          (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                          (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
                          (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                          This sequence is intentionally skipped  
  
                          Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8      Skipped Sequences  
    (NEW RULES)     Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence.  
                          <210> sequence id number  
                          <400> sequence id number  
                          000
- 9      Use of n's or Xaa's  
    (NEW RULES)     Use of n's and/or Xaa's have been detected in the Sequence Listing.  
                          Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
                          In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10      Invalid <213>  
    Response     Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11      Use of <220>  
    (NEW RULES)     Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
                          (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12      PatentIn 2.0  
    "bug"     Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13      Misuse of n/Xaa     "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid

## Best Available Copy



IFWP

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006

TIME: 10:12:56

Input Set : A:\50413.015001.txt

Output Set: N:\CRF4\05172006\J578521.raw

3 <110> APPLICANT: Chun, Jong-Yoon  
 5 <120> TITLE OF INVENTION: Method for Amplifying Unknown DNA Sequence Adjacent to Known  
 6 Sequence  
 8 <130> FILE REFERENCE: 50413/015001  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/578,521  
 C--> 10 <141> CURRENT FILING DATE: 2006-05-08  
 10 <150> PRIOR APPLICATION NUMBER: PCT/KR2003/002407  
 11 <151> PRIOR FILING DATE: 2003-11-10  
 13 <160> NUMBER OF SEQ ID NOS: 28  
 15 <170> SOFTWARE: PatentIn version 3.3  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 33  
 19 <212> TYPE: DNA  
 20 <213> ORGANISM: Artificial Sequence  
 22 <220> FEATURE:  
 23 <223> OTHER INFORMATION: DW-ACPI-A  
 26 <220> FEATURE:  
 27 <221> NAME/KEY: misc\_feature  
 28 <222> LOCATION: (22)..(28)  
 29 <223> OTHER INFORMATION: n denotes deoxyinosine  
 31 <400> SEQUENCE: 1  
 W--> 32 tcacagaagt atgccaagcg annnnnnnnag gtc  
 35 <210> SEQ ID NO: 2  
 36 <211> LENGTH: 33  
 37 <212> TYPE: DNA  
 38 <213> ORGANISM: Artificial Sequence  
 40 <220> FEATURE:  
 41 <223> OTHER INFORMATION: DW-ACPI-C  
 44 <220> FEATURE:  
 45 <221> NAME/KEY: misc\_feature  
 46 <222> LOCATION: (22)..(28)  
 47 <223> OTHER INFORMATION: n denotes deoxyinosine  
 49 <400> SEQUENCE: 2  
 W--> 50 tcacagaagt atgccaagcg annnnnnnncg gtc  
 53 <210> SEQ ID NO: 3  
 54 <211> LENGTH: 33  
 55 <212> TYPE: DNA  
 56 <213> ORGANISM: Artificial Sequence  
 58 <220> FEATURE:  
 59 <223> OTHER INFORMATION: DW-ACPI-T  
 62 <220> FEATURE:  
 63 <221> NAME/KEY: misc\_feature  
 64 <222> LOCATION: (22)..(28)

Does Not Contain  
 Corrected Diskette Needed  
 (Pg. 1-5)  
 PLS explain source of genetic material.  
 Invalid Response

PLS explain source of genetic material  
 Invalid Response

Same error

See item #11  
 on error summary sheet  
 5/17/2006

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006  
TIME: 10:12:56

Input Set : A:\50413.015001.txt  
Output Set: N:\CRF4\05172006\J578521.raw

65 <223> OTHER INFORMATION: n denotes deoxyinosine  
67 <400> SEQUENCE: 3  
W--> 68 tcacagaagt atgccaagcg annnnnnnntg gtc  
71 <210> SEQ ID NO: 4  
72 <211> LENGTH: 33  
73 <212> TYPE: DNA  
74 <213> ORGANISM: Artificial Sequence  
76 <220> FEATURE:  
77 <223> OTHER INFORMATION: DW-ACP1-G  
80 <220> FEATURE:  
81 <221> NAME/KEY: misc\_feature  
82 <222> LOCATION: (22)..(28)  
83 <223> OTHER INFORMATION: n denotes deoxyinosine  
85 <400> SEQUENCE: 4  
W--> 86 tcacagaagt atgccaagcg annnnnnnngg gtc  
89 <210> SEQ ID NO: 5  
90 <211> LENGTH: 33  
91 <212> TYPE: DNA  
92 <213> ORGANISM: Artificial Sequence  
94 <220> FEATURE:  
95 <223> OTHER INFORMATION: DW-ACP-2  
98 <220> FEATURE:  
99 <221> NAME/KEY: misc\_feature  
100 <222> LOCATION: (26)..(29)  
101 <223> OTHER INFORMATION: n denotes deoxyinosine  
103 <400> SEQUENCE: 5  
W--> 104 tcacagaagt atgccaagcg agggggnnnng gtc  
107 <210> SEQ ID NO: 6  
108 <211> LENGTH: 33  
109 <212> TYPE: DNA  
110 <213> ORGANISM: Artificial Sequence  
112 <220> FEATURE:  
113 <223> OTHER INFORMATION: DW-ACP2-NA  
116 <220> FEATURE:  
117 <221> NAME/KEY: misc\_feature  
118 <222> LOCATION: (26)..(28)  
119 <223> OTHER INFORMATION: n denotes deoxyinosine  
121 <400> SEQUENCE: 6  
W--> 122 tcacagaagt atgccaagcg agggggnnnag gtc  
125 <210> SEQ ID NO: 7  
126 <211> LENGTH: 33  
127 <212> TYPE: DNA  
128 <213> ORGANISM: Artificial Sequence  
130 <220> FEATURE:  
131 <223> OTHER INFORMATION: DW-ACP2-NC  
134 <220> FEATURE:  
135 <221> NAME/KEY: misc\_feature  
136 <222> LOCATION: (26)..(28)  
137 <223> OTHER INFORMATION: n denotes deoxyinosine

Same errors  
33

See item  
# 11 on  
33 error  
Summary  
Sheet.

## RAW SEQUENCE LISTING

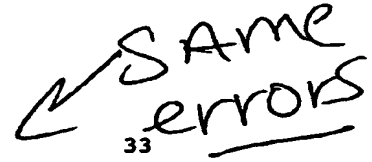
PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006

TIME: 10:12:56

Input Set : A:\50413.015001.txt

Output Set: N:\CRF4\05172006\J578521.raw

33

139 <400> SEQUENCE: 7  
W--> 140 tcacagaagt atgccaagcg agggggnnncg gtc  
143 <210> SEQ ID NO: 8  
144 <211> LENGTH: 33  
145 <212> TYPE: DNA  
146 <213> ORGANISM: Artificial Sequence  
148 <220> FEATURE:  
149 <223> OTHER INFORMATION: DW-ACP2-NT  
152 <220> FEATURE:  
153 <221> NAME/KEY: misc\_feature  
154 <222> LOCATION: (26)..(28)  
155 <223> OTHER INFORMATION: n denotes deoxyinosine  
157 <400> SEQUENCE: 8  
W--> 158 tcacagaagt atgccaagcg agggggnntg gtc 33  
161 <210> SEQ ID NO: 9  
162 <211> LENGTH: 33  
163 <212> TYPE: DNA  
164 <213> ORGANISM: Artificial Sequence  
166 <220> FEATURE:  
167 <223> OTHER INFORMATION: DW-ACP2-NG  
170 <220> FEATURE:  
171 <221> NAME/KEY: misc\_feature  
172 <222> LOCATION: (26)..(28)  
173 <223> OTHER INFORMATION: n denotes deoxyinosine  
175 <400> SEQUENCE: 9  
W--> 176 tcacagaagt atgccaagcg agggggnnngg gtc 33  
179 <210> SEQ ID NO: 10  
180 <211> LENGTH: 33  
181 <212> TYPE: DNA  
182 <213> ORGANISM: Artificial Sequence  
184 <220> FEATURE:  
185 <223> OTHER INFORMATION: DW-ACP3-N1  
188 <220> FEATURE:  
189 <221> NAME/KEY: misc\_feature  
190 <222> LOCATION: (22)..(25)  
191 <223> OTHER INFORMATION: n denotes deoxyinosine  
193 <400> SEQUENCE: 10  
W--> 194 tcacagaagt atgccaagcg annnngggggg gtc 33  
197 <210> SEQ ID NO: 11  
198 <211> LENGTH: 33  
199 <212> TYPE: DNA  
200 <213> ORGANISM: Artificial Sequence  
202 <220> FEATURE:  
203 <223> OTHER INFORMATION: DW-ACP3-N2  
206 <220> FEATURE:  
207 <221> NAME/KEY: misc\_feature  
208 <222> LOCATION: (23)..(26)  
209 <223> OTHER INFORMATION: n denotes deoxyinosine  
211 <400> SEQUENCE: 11

## Best Available Copy

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006

TIME: 10:12:56

Input Set : A:\50413.015001.txt

Output Set : N:\CRF4\05172006\J578521.raw

W--> 212 tcacagaagt atgccaagcg agnnnnngggg gtc  
 215 <210> SEQ ID NO: 12  
 216 <211> LENGTH: 33  
 217 <212> TYPE: DNA  
 218 <213> ORGANISM: Artificial Sequence  
 220 <220> FEATURE:  
 221 <223> OTHER INFORMATION: DW-ACP3-N3  
 224 <220> FEATURE:  
 225 <221> NAME/KEY: misc\_feature  
 226 <222> LOCATION: (24)..(27)  
 227 <223> OTHER INFORMATION: n denotes deoxyinosine  
 229 <400> SEQUENCE: 12

W--> 230 tcacagaagt atgccaagcg agnnnnngggg gtc

233 <210> SEQ ID NO: 13  
 234 <211> LENGTH: 20  
 235 <212> TYPE: DNA  
 236 <213> ORGANISM: Artificial Sequence  
 238 <220> FEATURE:  
 239 <223> OTHER INFORMATION: Nested DW-P3-N  
 241 <400> SEQUENCE: 13  
 242 ccaagcgagg gggggggggtc  
 245 <210> SEQ ID NO: 14  
 246 <211> LENGTH: 29  
 247 <212> TYPE: DNA  
 248 <213> ORGANISM: Artificial Sequence  
 250 <220> FEATURE:  
 251 <223> OTHER INFORMATION: DW-P1-A  
 254 <220> FEATURE:  
 255 <221> NAME/KEY: misc\_feature  
 256 <222> LOCATION: (22)..(24)  
 257 <223> OTHER INFORMATION: n is any base  
 259 <400> SEQUENCE: 14

W--> 260 tcacagaagt atgccaagcg annnaggtc

263 <210> SEQ ID NO: 15  
 264 <211> LENGTH: 29  
 265 <212> TYPE: DNA  
 266 <213> ORGANISM: Artificial Sequence  
 268 <220> FEATURE:  
 269 <223> OTHER INFORMATION: DW-P1-C  
 272 <220> FEATURE:  
 273 <221> NAME/KEY: misc\_feature  
 274 <222> LOCATION: (22)..(24)  
 275 <223> OTHER INFORMATION: n is any base  
 277 <400> SEQUENCE: 15

W--> 278 tcacagaagt atgccaagcg annncgggtc

281 <210> SEQ ID NO: 16  
 282 <211> LENGTH: 29  
 283 <212> TYPE: DNA  
 284 <213> ORGANISM: Artificial Sequence

✓ 33  
 Same  
 ERRORS

33

20

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## Best Available Copy

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006

TIME: 10:12:56

Input Set : A:\50413.015001.txt

Output Set: N:\CRF4\05172006\J578521.raw

286 <220> FEATURE:  
 287 <223> OTHER INFORMATION: DW-P1-T  
 290 <220> FEATURE:  
 291 <221> NAME/KEY: misc\_feature  
 292 <222> LOCATION: (22)..(24)  
 293 <223> OTHER INFORMATION: n is any base  
 295 <400> SEQUENCE: 16

W--> 296 tcacagaagt atgccaagcg annntggc  
 299 <210> SEQ ID NO: 17  
 300 <211> LENGTH: 29  
 301 <212> TYPE: DNA  
 302 <213> ORGANISM: Artificial Sequence  
 304 <220> FEATURE:  
 305 <223> OTHER INFORMATION: DW-P1-G  
 308 <220> FEATURE:  
 309 <221> NAME/KEY: misc\_feature  
 310 <222> LOCATION: (22)..(24)  
 311 <223> OTHER INFORMATION: n is any base  
 313 <400> SEQUENCE: 17

W--> 314 tcacagaagt atgccaagcg annngggc  
 317 <210> SEQ ID NO: 18  
 318 <211> LENGTH: 29  
 319 <212> TYPE: DNA  
 320 <213> ORGANISM: Artificial Sequence  
 322 <220> FEATURE:  
 323 <223> OTHER INFORMATION: DW-P1  
 326 <220> FEATURE:  
 327 <221> NAME/KEY: misc\_feature  
 328 <222> LOCATION: (22)..(25)  
 329 <223> OTHER INFORMATION: n is any base  
 331 <400> SEQUENCE: 18

W--> 332 tcacagaagt atgccaagcg annnnngc  
 335 <210> SEQ ID NO: 19  
 336 <211> LENGTH: 21  
 337 <212> TYPE: DNA  
 338 <213> ORGANISM: Artificial Sequence  
 340 <220> FEATURE:  
 341 <223> OTHER INFORMATION: JYC3  
 343 <400> SEQUENCE: 19  
 344 tcacagaagt atgccaagcg a  
 347 <210> SEQ ID NO: 20  
 348 <211> LENGTH: 20  
 349 <212> TYPE: DNA  
 350 <213> ORGANISM: Artificial Sequence  
 352 <220> FEATURE:  
 353 <223> OTHER INFORMATION: mTNFa-C1  
 355 <400> SEQUENCE: 20  
 356 caccttgccc tgcccattag  
 359 <210> SEQ ID NO: 21

← Same  
errors

29

See item  
29 # 11 on  
error  
summary  
sheet,

29

21

20

The type of errors shown exist throughout  
the Sequence Listing. Please check subsequent  
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006  
TIME: 10:12:57

Input Set : A:\50413.015001.txt  
Output Set: N:\CRF4\05172006\J578521.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 22,23,24,25,26,27,28 ✓  
Seq#:2; N Pos. 22,23,24,25,26,27,28 ✓  
Seq#:3; N Pos. 22,23,24,25,26,27,28 ✓  
Seq#:4; N Pos. 22,23,24,25,26,27,28 ✓  
Seq#:5; N Pos. 26,27,28,29 ✓  
Seq#:6; N Pos. 26,27,28 ✓  
Seq#:7; N Pos. 26,27,28 ✓  
Seq#:8; N Pos. 26,27,28 ✓  
Seq#:9; N Pos. 26,27,28 ✓  
Seq#:10; N Pos. 22,23,24,25 ✓  
Seq#:11; N Pos. 23,24,25,26 ✓  
Seq#:12; N Pos. 24,25,26,27 ✓  
Seq#:14; N Pos. 22,23,24 ✓  
Seq#:15; N Pos. 22,23,24 ✓  
Seq#:16; N Pos. 22,23,24 ✓  
Seq#:17; N Pos. 22,23,24 ✓  
Seq#:18; N Pos. 22,23,24,25 ✓  
Seq#:28; N Pos. 1,2,3,4,5,6 ✓



## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/578,521

DATE: 05/17/2006

TIME: 10:12:57

Input Set : A:\50413.015001.txt

Output Set: N:\CRF4\05172006\J578521.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
L:68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
L:230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0  
L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
L:296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0  
L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0  
L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0  
L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0